```matlab
clear all;

% Parameters
Tend = 1.0;
b = 10.0;
c = (b^2)/4;
h1 = 0.5;

% Initialization
i = 1;
t(i) = 0.0;
y1(i) = 1;
y2(i) = 0;
Eh1 = zeros(1000,1); % error E_h1

% Exact solution
tt = linspace(0, Tend, 1000);
ye = (1 + b/2*tt).*exp(-b/2*tt);

% Recursive scheme for Euler's method (h1)
while (t(i) + h1 < Tend + 1.e-12)
    y1(i+1) = y1(i) + h1*y2(i);
    y2(i+1) = y2(i) + h1*(-c*y1(i) -b*y2(i));
    Eh1(i+1,1) = abs(y1(i+1) - ye(i+1));
    t(i+1) = t(i) + h1;
    i = i+1;
end

% Compare numerical solution with exact solution
figure(1);
plot(tt, ye, '-', t, y1, 'r-o');
legend('Exact solution', 'Euler''s solution (h = 0.5)', 'Location','best');
xlabel('t');
ylabel('y(t)');
```